

# the CLASSICAL PROCEDURE for DIFFERENTIAL STAINING of BACTERIA through contemporary means



**THE HARLECO GRAM STAIN SET**... the up-to-date package featuring excellent differentiation of positive and negative organisms from cultures or specimens by the Gram Method.

It's the complete set... offering sufficient solution for up to 83 slides, with all stains tested for optimum Gram staining. Preparation is minimal. And, stability is extended by use of separate glass bottles. Ready-to-use components, in larger sizes are available separately too.

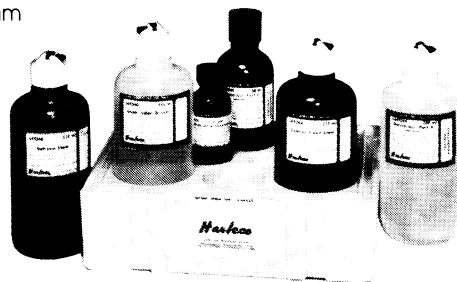
Storage is convenient and the flip-top dispenser caps allow for ease of application.

#### The Harleco Gram Stain Set

• easy • complete • contemporary

**HARLECO ITEM ★ 64924—\$11.88/SET**

For more information, contact your local distributor or Harleco representative.



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# How to save money... with glass-fiber filter paper

Many research workers *think* it costs more to use glass filter paper.

Not so! When you consider that **Whatman\*** Glass-Microfiber Papers filter at least 10 times as

fast as the best grades of cellulose filter paper, you then realize that a smaller filter circle can actually save you money and still filter faster.

And look at the other advantages **Whatman** binder-free 100%-borosilicate glass-fiber filters provide:

- Very Fine-Particle Retention
- Binder-free 100%-Borosilicate Glass
- High Loading Capacity
- Chemical and Biological Inertness
- Thermal Stability (up to 500 C/900 F)

Whether you're using slow, expensive membranes for fine-particle filtration, or cellulose papers, **Whatman** GF papers can save you money.

Figure it out for yourself. Assume that 1) you run 100 filtrations per day (or other period of time) on similar samples. 2) the suspended material

is fine or gelatinous and requires the finest grade of cellulose paper. 3) the filtration takes 10 minutes using a 12.5-cm **Whatman** No.42 (or equivalent) circle in a Buchner suction funnel.

Now, compare your actual costs against this hypothetical example.

## calculation sheet

	TYPICAL BASE		YOUR ACTUAL	
	Filter Circle	Time	Filter Circle	Time
A. No. of filtrations per series	100	100		
B. No. of filtrations run simultaneously	4	4		
C. No. of runs (A ÷ B)	25	25		
D. Filtration time, minutes per batch	10	5		
E. Total filtration time, minutes	250	125		
F. Total filtration time, hours	4.17	2.08		
G. Technician cost, hourly rate	\$ 5.00	\$ 5.00		
H. Time Cost, total (F x G)	\$20.83	\$ 6.25		
J. Technician cost saving		\$14.58		
K. Filter Paper cost	\$ 3.27	\$ 2.85		
L. Filter Paper savings		\$ 0.42		
M. Total cost savings (J + L)		\$15.00		

Perhaps you should consider **Whatman** Glass-Microfiber paper as a general-purpose material... not just a specialty filter.

**Whatman**, the No. 1 name in laboratory filtration, now has 5 grades of glass-fiber "depth" filters with combinations of properties not found together in any other lab filters for liquid or gaseous filtration:

- GF/A** Fast-flow general-purpose paper; 1.6 $\mu$  particle retention
- GF/B** Extra-thick, non-clogging, very high capacity for particles down to 1.0 $\mu$
- GF/C** Special thin paper, superfine microfibers; extremely fast flow, retention to 1.2 $\mu$
- GF/D** New dual-purpose general use or membrane prefilter; very fast flow
- GF/F** New fast ultrafine paper, retains down to 0.7 $\mu$  (below 0.1  $\mu$  in air)

**Membrane users:** Glass-fiber filters can frequently do the job faster and cheaper... also, as prefilters they extend membrane life

To find out which **Whatman** Glass-Microfiber paper can improve your filtrations—and save you time and money—contact Bill Catlin at H. Reeve Angel & Co., Inc., 9 Bridewell Place, Clifton, N. J. 07014, (201) 777-4825

**La reeve angel**

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# SPORES V

Edited by

HARLYN O. HALVORSON, RICHARD HANSON, AND  
L. LEON CAMPBELL

A publication comprising the papers presented at the Fifth International Spore Conference, held at Fontana, Wisconsin, 8-10 October 1971.

This book contains reviews as well as reports of original and basic research in eight related areas of interest regarding spores.

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2. Genetics of spore forms.
3. Biochemical changes during sporulation:  
Sporulation-related events.
4. Regulation of macromolecular synthesis during  
sporulation and outgrowth.
5. Ecology of spore forms.
6. Immunology of spores and spore forms.
7. Cryptobiosis: Dormancy and its alterations.
8. Biochemical mechanisms of germination.

This book will serve as a valuable resource book for investigators, teachers, students, industry, and libraries.

1972

471 pages

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## **FERMENTATION TECHNOLOGY TODAY**

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**Edited by Dr. Gyoza Terui**

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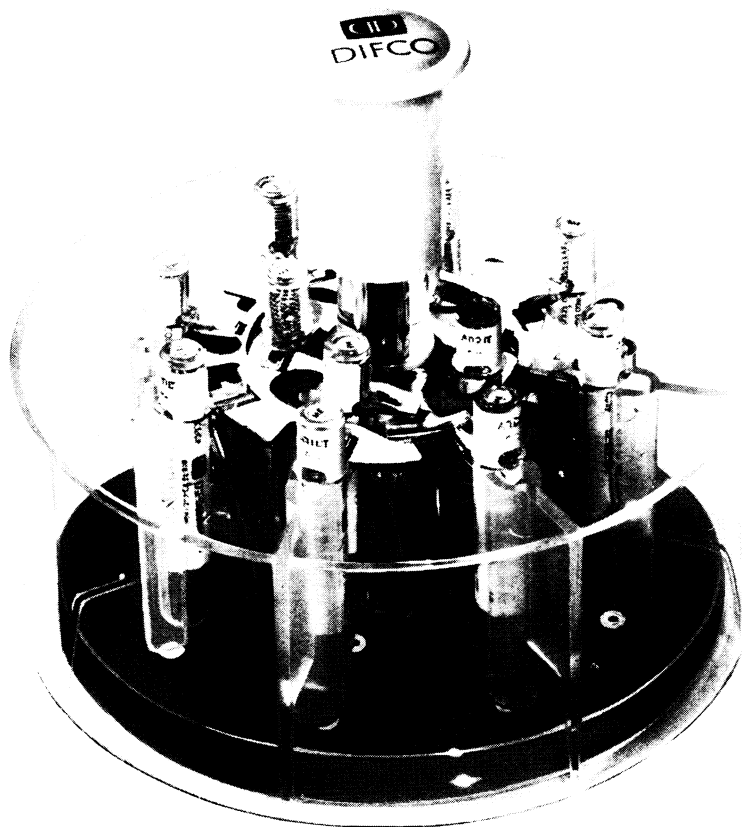
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